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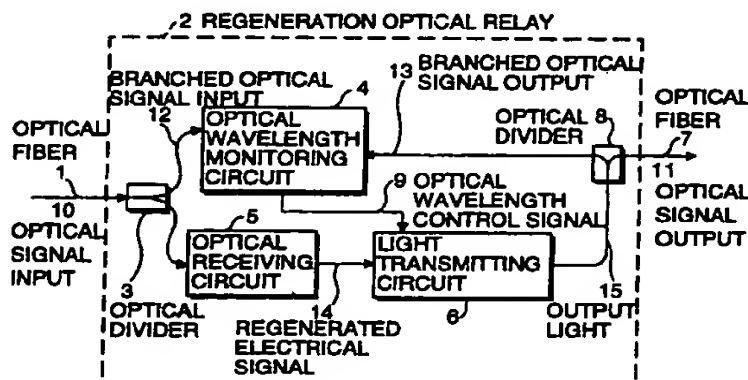
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(54) **Method and device for regeneration and relay of optical transmission signal and wavelength division multiplexing transmission system using the same**

(57) Provided are a regeneration relay 2 which comprises a light receiver 5 for converting an inputted optical signal 10 to an electrical signal, thereby outputting the electrical signal 14; a light transmitter 6 for converting the electrical signal 14 outputted from the light receiver 5 to an optical signal, thereby outputting the optical signal while varying a wavelength of the optical signal; and a wavelength monitor 4 for controlling the light transmitter 6 so that a wavelength of a light outputted from the light transmitter 6 and a wavelength of a

light inputted to the light receiver are made to be equal to each other. Provided is an optical regeneration relay used in a wavelength multiplexing transmitting system, which is capable of relaying a regenerated light with a simple constitution and facilitating a control of a wavelength of a signal on a transmitting path by monitoring a wavelength of a first stage wavelength multiplexing unit for outputting a signal to the transmitting path.

Fig.2



European Patent
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EUROPEAN SEARCH REPORT

Application Number
EP 99 11 3627

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Place of search THE HAGUE		Date of completion of the search 26 January 2001	Examiner Goudelis, M
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

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**ANNEX TO THE EUROPEAN SEARCH REPORT
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This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on
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